Volunteer community health worker's role in promoting healthy actions: an evaluation of the Essential Services for Health in Ethiopia (ESHE) Project

Impact Evaluation Conference
June 16th, 2011
Cuernavaca, Mexico

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Outline

- Background of Child Health in Ethiopia
- USAID/ESHE Project Design & Strategy
- Methodology for Household Surveys
- Analytic Approach to Evaluate ESHE Impact
- Results of Impact Evaluation
- Policy Impact

Background of Child Health in Ethiopia

Population: 77 million (85% rural)

Neonatal Mortality Rate: 39 per 1000 live births

Infant Mortality Rate: 77 per 1000 live births

Child Mortality Rate: 123 per 1000 under-fives

Maternal Mortality Rate: 673 per 100,000 live births

Annual Number of Under-5 Deaths: 472,000

→ 6th highest in the world

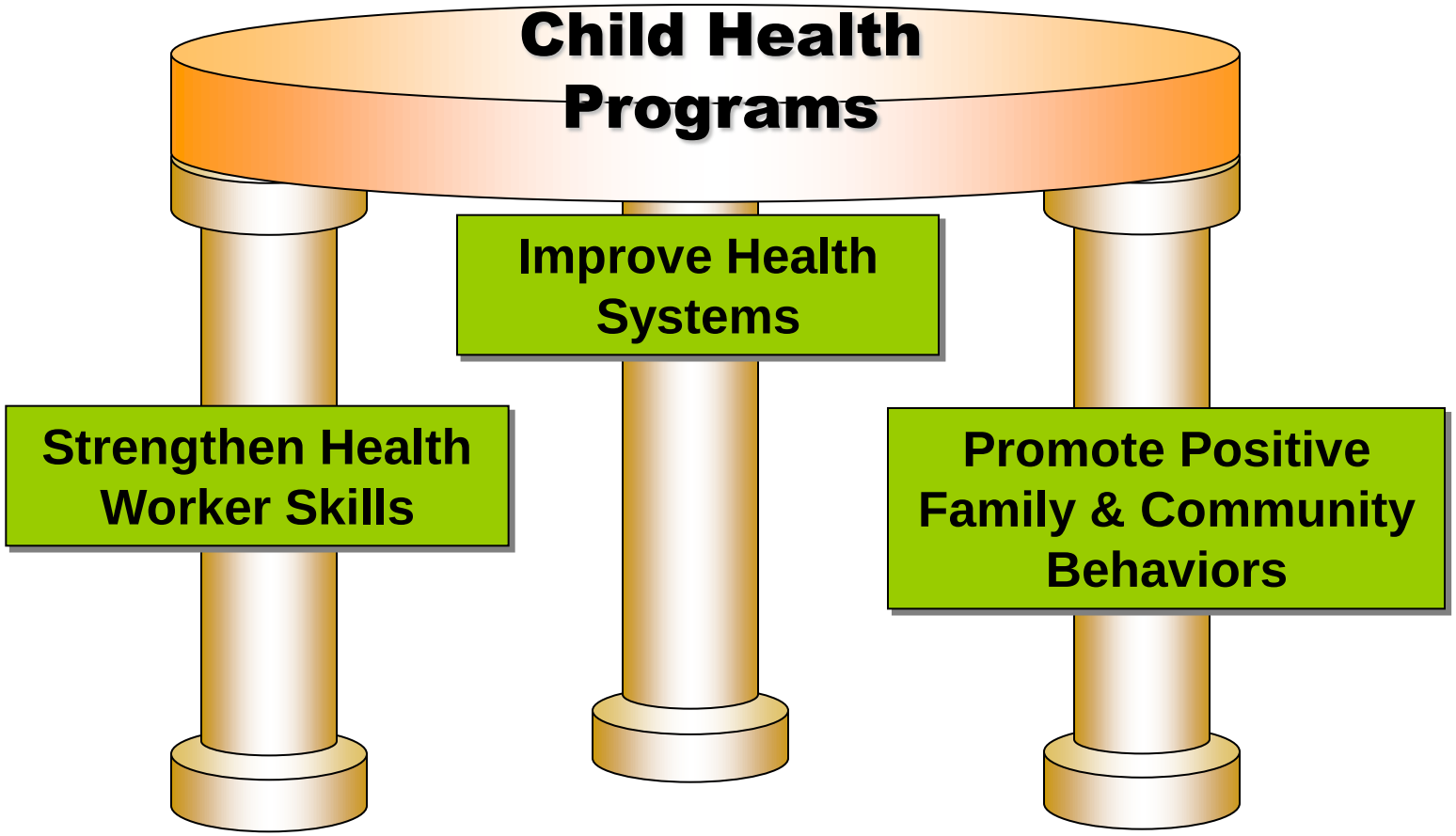
Preventable Under-5 Deaths: 340,000 or 72%

Sources: DHS 2005 and The Lancet Child Survival Series 2003

ESHE Project Design

- USAID bilateral project designed to address child health outcomes and health care financing reform: 2003-2008
- Multi-faceted project working at all levels of the health system and designed with national and regional stakeholder input and support
- Teamed up community volunteers with paid Health Extension Workers to accelerate coverage of child health interventions

ESHE Strategy: Three Pillars


Child Health Programs
Improve Health Systems
Strengthen Health Worker Skills
Promote Positive Family & Community Behaviors

Tulloch J, Integrated approach to child health in developing countries. *Lancet* 1999 Sep; 354 Suppl 2:SII16-20

ESHE Strategy

Implementation Timeline in SNNP Region

Strengthen Health Worker Skills

Build capacity of health workers in high impact child health interventions: EPI, ENA, IMNCI

Improve Health Systems

Strengthen planning, HMIS, use of data for action, supportive supervision, logistics and health care financing

Promote Positive Family & Community Behaviors

Introduce volunteer community health promoter initiative to enhance the reach of HEWs in community

2003 → 2008

USAID FROM THE AMERICAN PEOPLE | Methodology for Household Surveys

- Study Design
  - Pre-post quasi-experimental
  - Interviews conducted with women of reproductive age and women with children under the age of 2
- Sample Area
  - Multi-stage cluster sampling; probability proportion to size (PPS)
  - 30 clusters from ESHE & 30 clusters from non-ESHE areas
- Sample Size
  - Baseline Survey
    - Women aged 15-49 (900), children 0-11 months (900) and children 12-23 months (900)
  - Endline Survey
    - Women aged 15-49 (600), children 0-11 months (600) and children 12-23 months (600)

Analytic Approach to Evaluate Impact

- Identified four outcomes to evaluate program impact
  - Percent of women of reproductive age whose household has an improved latrine
  - Percent of children 12-23 months that have received 3 doses of DPT vaccine
  - Percent of children 0-5 months that are exclusively breastfed
  - Percent of married women of reproductive age using modern contraception
- Prepared descriptive statistics of mother and child characteristics and proposed outcomes in control and intervention areas by time period
- Conducted simple comparison of before and after intervention in both groups
- Conducted logistic regression analysis with difference-in-differences (D-in-D) estimation with and without controls

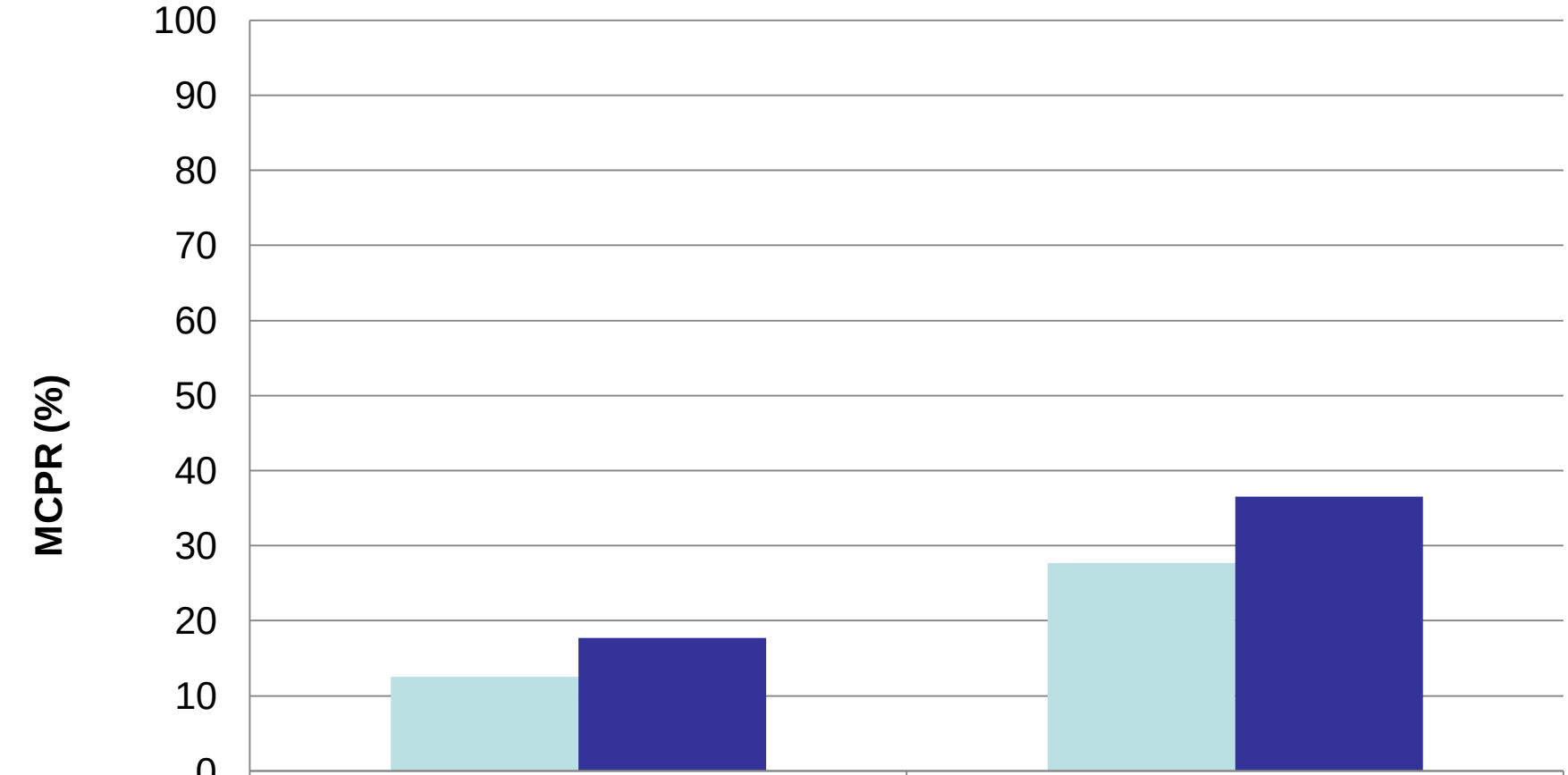
Results of Impact Evaluation

Description of Control and Intervention Groups

		Baseline (2003)		Endline (2008)	
		Control	Intervention	Control	Intervention
		(N=480)	(N=420)	(N=300)	(N=300)
Maternal Education	No education	67	55	78	73
	Primary	26	33	16	19
	Secondary+	8	12	6	8
Time to health center	Less than 1 hour	44	50	78	91
	1-2 hours	43	40	21	9
	2+ hours	13	10	1	0
Age of Mother	15-24	31	21	26	33
	25-34	51	62	53	52
	35-49	18	17	21	16
Age of child	0-5 months	28	27	23	25
	6-11 months	23	23	26	23
	12-23 months	49	50	51	52
Sex of child	Male	53	53	48	50
	Female	48	47	52	50
Access to clean water		67	67	49	73
Marital Status		94	97	96	97

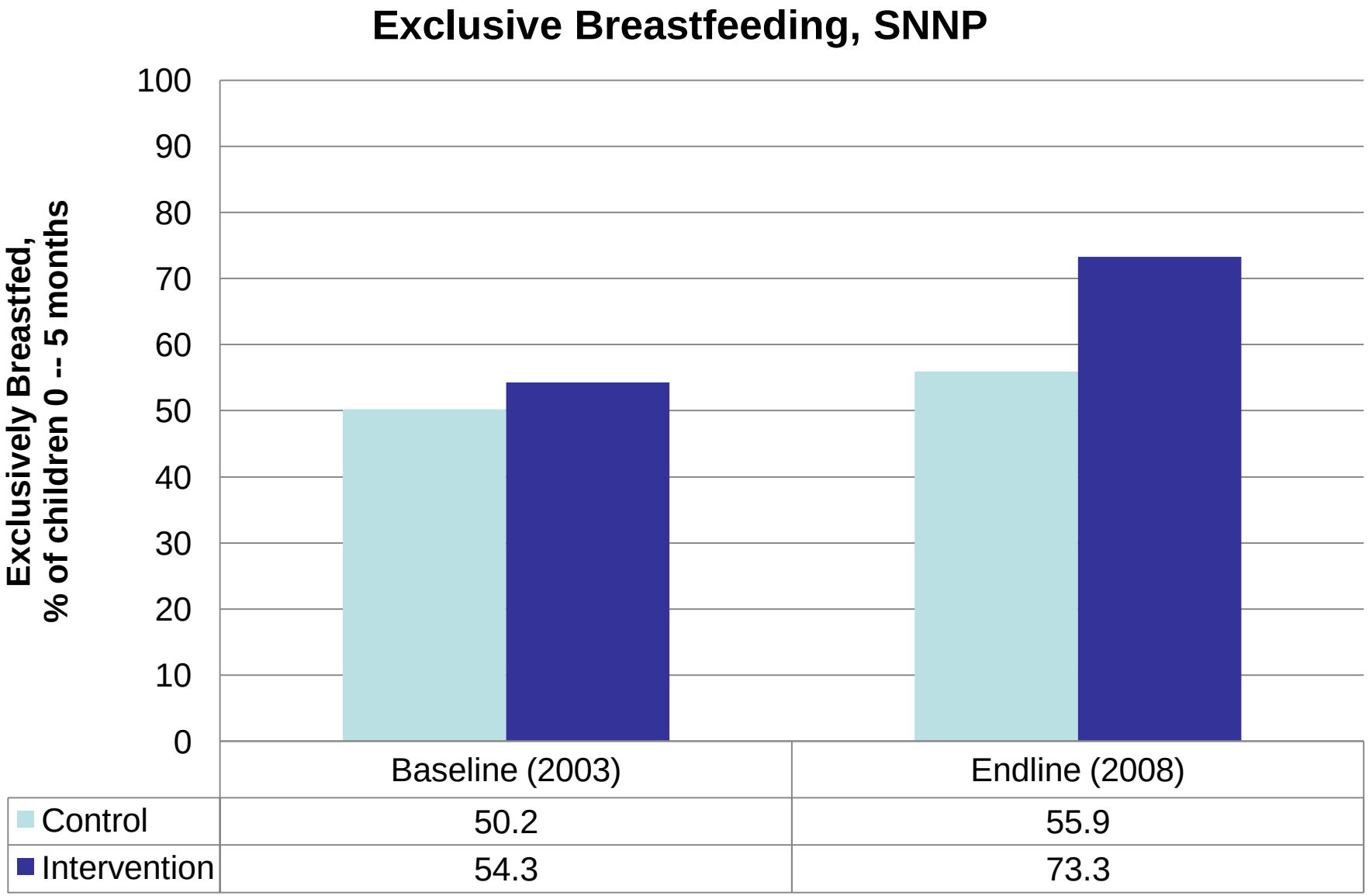
Results of Impact Evaluation

Family Planning, Modern Methods, SNNP



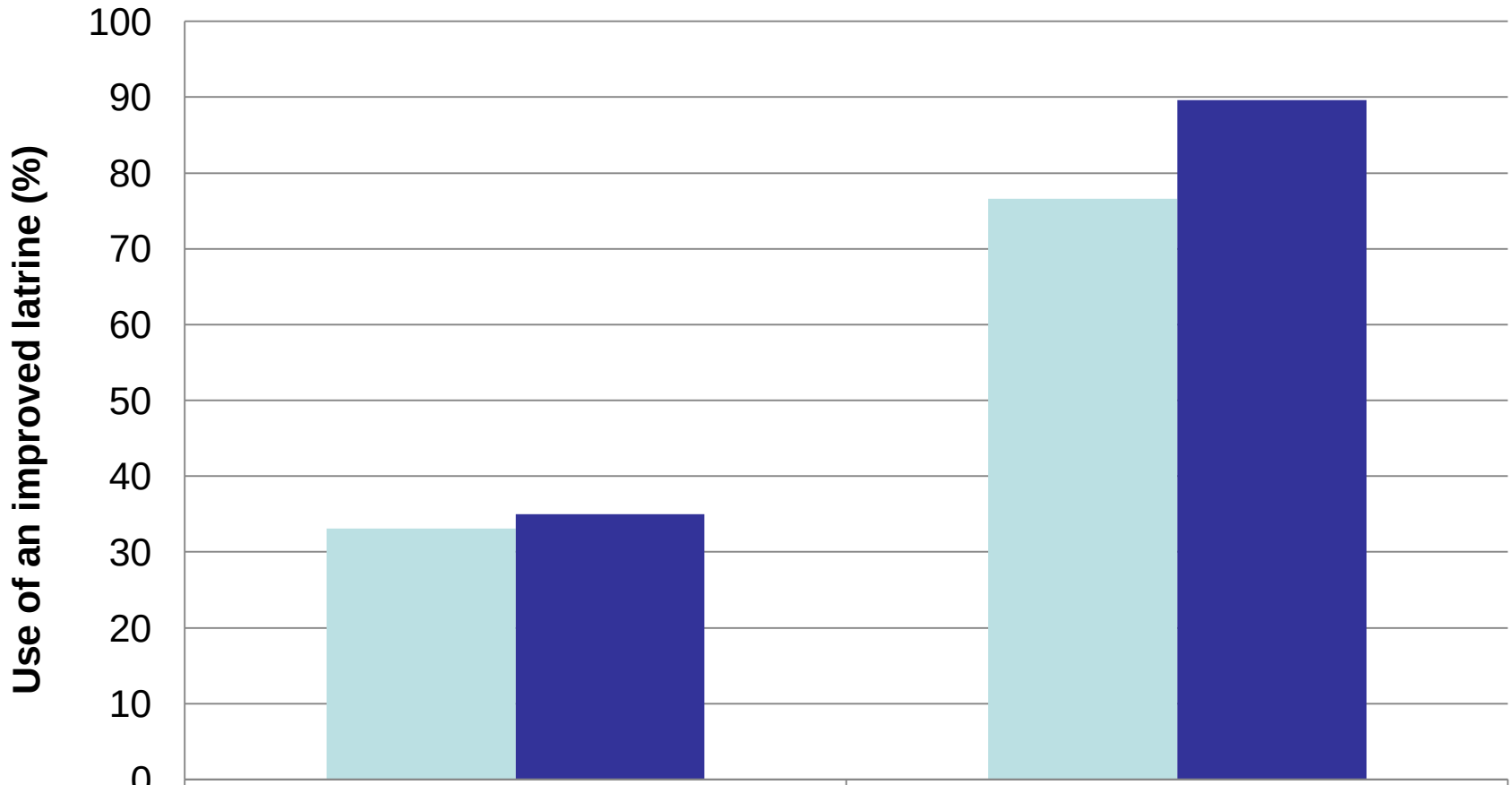
	Baseline (2003)	Endline (2008)
Control	12.5	27.7
Intervention	17.7	36.5

Results of Impact Evaluation



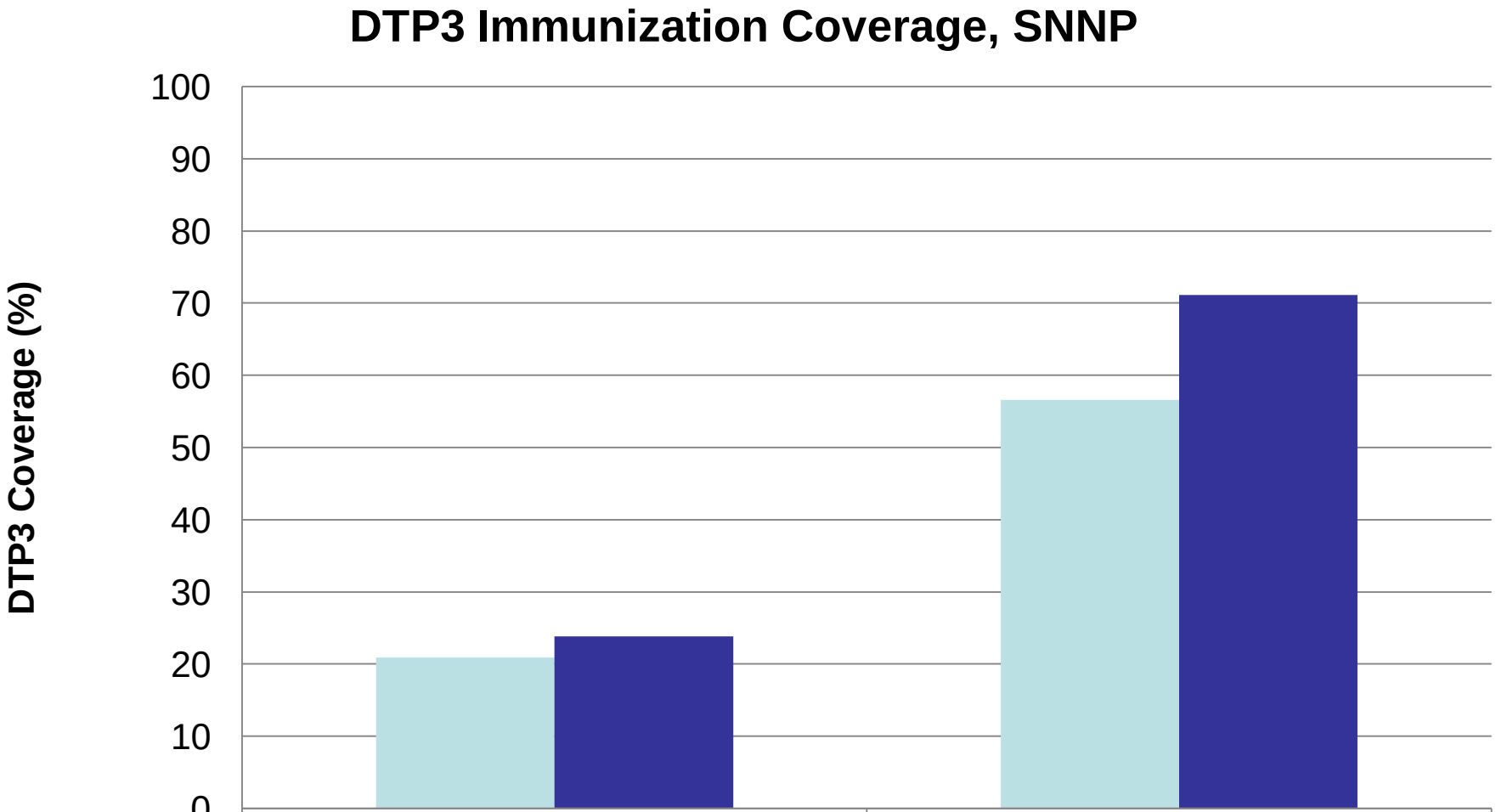
Results of Impact Evaluation

Use of an Improved Latrine, SNNP



	Baseline (2003)	Endline (2008)
Control	33.1	76.6
Intervention	35	89.6

Results of Impact Evaluation



	Baseline (2003)	Endline (2008)
Control	20.9	56.6
Intervention	23.8	71.1

Results of Impact Evaluation

	% improvement between Endline control and Intervention*	% improvement using Baseline to Endline change, control and intervention**
MCPR	32% of endline control	20% of baseline value
EBF	31%	25%
Improved Latrines	17%	32%
DTP3	26%	49%

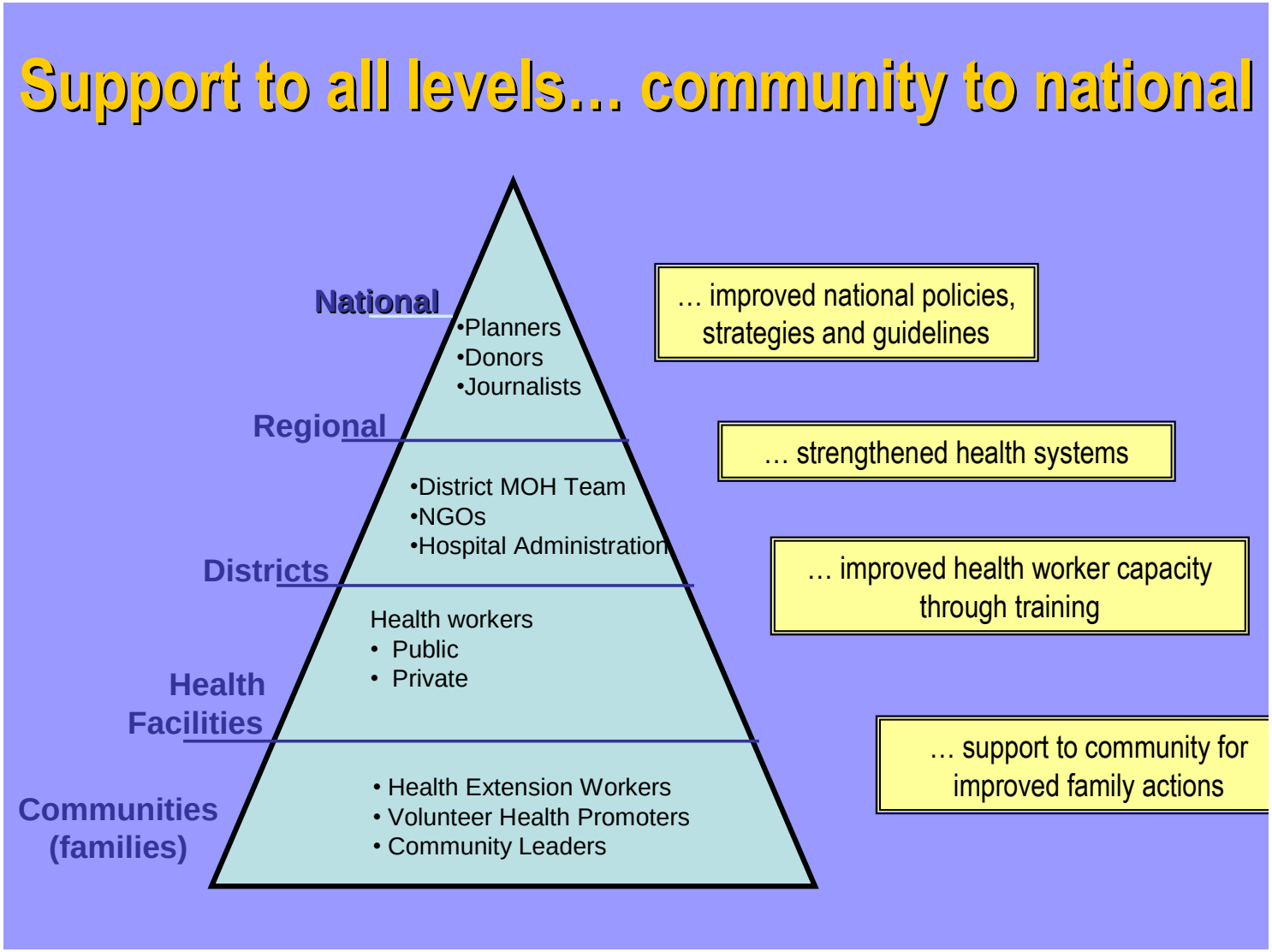
* Calculated as: (Intervention Endline – Control Endline)/Control Endline
** Calculated as: ((Intervention Endline – Intervention Baseline) – (Control Endline – Control Baseline))/Intervention Baseline

Results of Impact Evaluation

	Simple T-test of Endline (Control vs. Intervention)	Difference in Difference without controls	Difference in Difference with controls*
MCPR	**Significant improvement** (p=0.012, 95% CL)	No significant improvement	No significant improvement
EBF	**Significant improvement** (p=0.001, 99% CL)	**Significant improvement** (p=0.051, 90% CL)	No significant improvement
Improved Latrines	**Significant improvement** (p=0.000, 99% CL)	**Significant improvement** (p=0.001, 99% CL)	**Significant improvement** (p=0.002, 99% CL)
DTP3	**Significant improvement** (p=0.000, 99% CL)	**Significant improvement** (p=0.044, 95% CL)	**Significant improvement** (p=0.009, 99% CL)

* Controls were: sex of child, HH time to health center, maternal education. Mother outcomes also included: age, water source, and marital status.

Target multiple levels



Policy Impact

- Project implementation design provided an easy window to engage with policy makers and managers at all levels
- HMIS data review teams at health facility, district, zone and regional levels fostered new strategies to improve health outcomes
- Regional ownership of the community volunteer initiative led to one standardized approach that was scaled up and sustained
- Strong support to expand USAID/ESHE style of assistance in the follow-on project was due, in part, to GOE ownership of results

Thank You!

To Health Extension Workers and volunteer CHWs, Regional Health Bureau staff, and USAID/ESHE team.

To Sarah Bergman, Leanne Dougherty, Yared Mekonnen, Brian Mulligan, and Amanda Pomeroy for assistance in analysis and presentation.

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